

FRANKEN ET AL. -- 10/615,421
Client/Matter: 081468-0304791

REMARKS

Claims 1-21 are pending. By this Amendment, the specification is amended and claims 1, 11 and 21 are amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Figure 1 was objected to. The objection is respectfully traversed.

As disclosed, for example, on page 7, Figure 1 depicts a lithographic projection apparatus according to an embodiment of the present invention. See also, for example, page 8, lines 2-3.

Reconsideration and withdrawal of the objection to the drawings are respectfully requested.

Claims 1-5, 8-15 and 18-21 were rejected under 35 U.S.C. §102(b) over Hayashi (U.S. Patent 6,036,162). The rejection is respectfully traversed.

Claim 1 recites a lithographic projection apparatus including, *inter alia*, a support constructed and arranged to support a patterning device and a substrate table constructed and arranged to hold a substrate. A projection system is constructed and arranged to project a patterned beam of radiation onto a target portion of the substrate. A base is provided to which the support and a substrate table are mounted. A reference frame is compliantly mounted to the base and the projection system comprises at least one optical element mounted on a projection frame that is compliantly mounted to the reference frame.

It is respectfully submitted that there is no disclosure or suggestion by Hayashi of a base to which the support and a substrate table are mounted, nor is there any disclosure of a reference frame compliantly mounted to the base. It is also respectfully submitted that there is no disclosure or suggestion by Hayashi that the projection system comprises at least one optical element mounted to a projection frame that is compliantly mounted to the reference frame.

Hayashi discloses that the mounting plate 106 is mounted to the base frame 102 by the vibration isolation mounts 103A-103C (there being a fourth vibration isolation mount not shown in Figure 1). Therefore, Hayashi discloses that the wafer stage 120 is compliantly mounted to the base frame 102 through the vibration isolation mounts 103. However, there is no disclosure or suggestion by Hayashi that the projection optical system 125, which is installed at the center of the top plate of the first column 124, includes at least one optical element mounted on a projection frame that is compliantly mounted to a reference frame.

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Hayashi discloses that the first column 124, which as discussed supports the projection optical system 125, has four legs that surround the wafer stage 120 on the mounting plate 106. However, there is no disclosure or suggestion that the first column 124 is mounted to the mounting plate 106 compliantly. It is also respectfully submitted that the second column 126, which supports the reticle 128, is not mounted to a base which supports the second column 126 and the wafer stage 120. Accordingly, there is no disclosure or suggestion by Hayashi of a base to which a support and a substrate table are mounted. As Hayashi does not disclose or suggest all of the features of claim 1, Hayashi cannot anticipate or render obvious claim 1.

Claims 2-5 and 8-10 recite additional features of the invention are allowable for the same reasons discussed above with respect to claim 1 and for the additional features recited therein.

Claim 11 recites a device manufacturing method including, *inter alia*, supporting a reference frame, a support, and a substrate table on a base. The reference frame is compliantly mounted to the base and the projection system is mounted to the reference frame. The method further includes compliantly mounting the projection system to the reference frame while projecting a pattern beam of radiation onto a target portion of a layer of radiation-sensitive material at least partially covering a substrate.

As discussed above, there is no disclosure or suggestion by Hayashi of compliantly mounting a projection system to a reference frame, as recited in claim 11. The projection optical system 125 of Hayashi is supported by the first column 124 which is supported by the mounting plate 106. However, there is no disclosure or suggestion by Hayashi that the first column 124 is compliantly mounted to the mounting plate 106. Accordingly, Hayashi cannot anticipate or render obvious claim 11.

Claims 12-15 and 18-20 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claim 11 and for the additional features recited therein.

Claim 21 recites a lithographic projection apparatus including, *inter alia*, a reference frame mounted a base, wherein the projection system comprises at least one optical element mounted on a projection that is mounted to the reference frame. As discussed above, there is no disclosure or suggestion by Hayashi of this feature.

Claim 21 additionally recites at least first isolation mount operatively between the reference frame and the base to inhibit vibrations or movements of a predetermined type from

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being transmitted from the base to the reference frame and at least one second isolation mount operatively between the reference frame and the projection frame to inhibit vibrations or movements of a predetermined type from being transmitted from the reference frame to the projection frame.

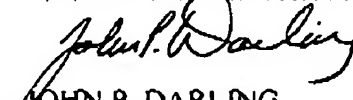
Hayashi discloses the vibration isolation mounts 103A-C between the base frame 102 and the mounting plate 106. However, Hayashi does not disclose or suggest at least one second isolation mounting operatively between the mounting plate 106 and the first column 124 which supports the projection optical system 125. Accordingly, Hayashi cannot anticipate or render obvious claim 21.

Reconsideration and withdrawal of the rejection of claims 1-5, 8-15 and 18-21 over Hayashi are respectfully requested.

Applicants appreciate the indication that claims 6, 7, 16 and 17 define patentable subject matter. However, in view of the above amendments and remarks, Applicants respectfully submit that all the claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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